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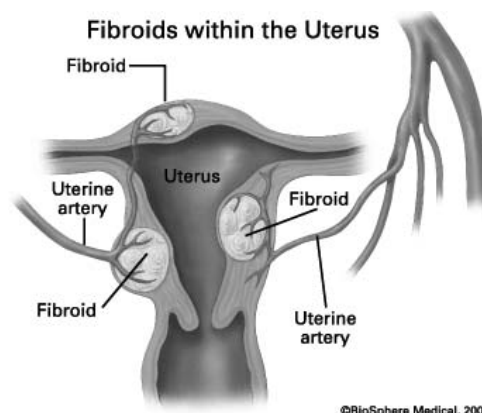
Uterine Fibroids

Q: What are fibroids?

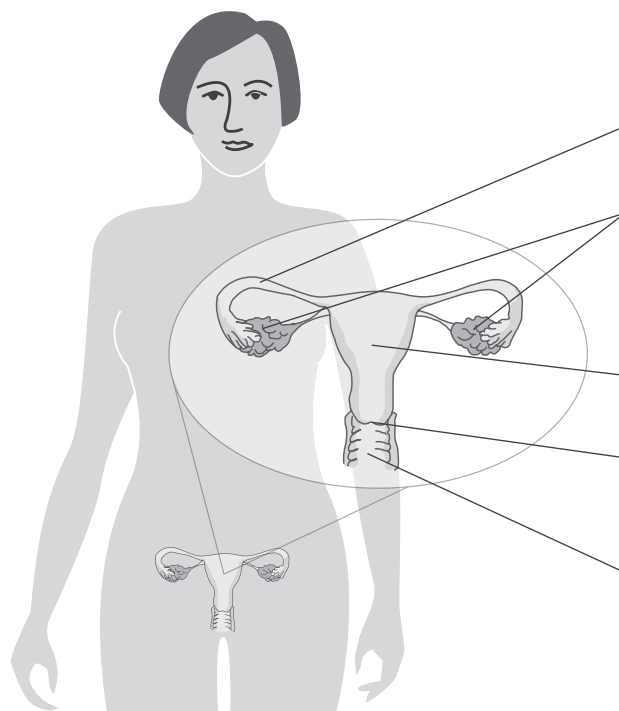
A: Uterine fibroids are tumors or growths, made up of muscle cells and other tissues that grow within the wall of the uterus (or womb). Although fibroids are sometimes called tumors, they are almost always benign (not cancerous). The medical term for fibroids is uterine leiomyomata (you-ter-in lie-oh-my-oh-mah-tah). Fibroids can grow as a single growth or in clusters (or groups). Their size can vary from small, like an apple seed (or less than one inch), to even larger than a grapefruit, or eight inches across or more.

Q: Why should women know about fibroids?

A: Uterine fibroids are the most common, benign tumors in women of childbearing age, but no one knows exactly what causes them. They can be frustrating to live with when they cause symptoms. Not all women with fibroids have symptoms, but some have pain and heavy menstrual bleeding. Fibroids also can put pressure on the bladder, causing frequent urination.



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Fallopian tube
connects the ovary to the uterus

Ovaries
two small glands next to the uterus that make hormones, such as estrogen, which spark the start of your menstrual cycle, and release one egg about once a month until menopause

Uterus (womb)
an inside area or pocket where a baby grows

Cervix
the narrow entryway in between the vagina and uterus

Vagina
a hollow canal or tube made of muscle that can grow wider to deliver a baby that has finished growing inside the uterus



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Q: Who gets fibroids?

A: More research is being done to figure out who is at risk for fibroids. But it is known that:

- Most of the time, fibroids grow in women of childbearing age.
- African American women are more likely to get them than women of other racial groups.
- African American women tend to get fibroids at a younger age than do other women.
- Women who are overweight or obese also are at a slightly higher risk for fibroids than women who are not overweight.
- Women who have given birth appear to be at a lower risk for fibroids.

Q: Where can fibroids grow?

A: Doctors put fibroids into three groups based on where they grow, such as just underneath the lining of the uterus, in between the muscles of the uterus, or on the outside of the uterus. Most fibroids grow within the wall of the uterus. Some fibroids grow on stalks (called peduncles) that grow out from the surface of the uterus, or into the cavity of the uterus.

Q: What are the symptoms of fibroids?

A: Most fibroids do not cause any symptoms, but some women with fibroids can have:

- heavy bleeding or painful periods
- bleeding between periods
- feeling of fullness in the pelvic area (lower abdomen)

- urinating often
- pain during sex
- lower back pain
- reproductive problems, such as infertility, having more than one miscarriage, or having early onset of labor during pregnancy

Q: What causes fibroids?

A: No one knows for sure what causes fibroids. Researchers have some theories, but most likely, fibroids are the result of many factors interacting with each other. These factors could be hormonal (affected by estrogen levels), genetic (running in families), environmental, or a combination of all three. Because no one knows for sure what causes fibroids, we also don't know what causes them to grow or shrink. For the most part, fibroids stop growing or shrink after menopause. But, this is not true for all women with fibroids.

Q: Can fibroids turn into cancer?

A: Fibroids are almost always benign, or not cancerous, and they rarely turn into cancer (less than 0.1 percent of cases). Having fibroids does not increase a woman's chances of getting cancer of the uterus.

Q: How do I know for sure that I have fibroids?

A: Your doctor may find that you have fibroids when you see her or him for a regular pelvic exam to check your uterus, ovaries, and vagina. Often, a doctor will describe how small or how large the fibroids are by comparing their size to the size your uterus would be if you were pregnant. For example,



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you may be told that your fibroids have made your uterus the size it would be if you were 8 weeks pregnant.

Your doctor can do imaging tests, or tests that create a “picture” of the inside of your body without surgery, in order to confirm that you have fibroids. These tests might include:

- ultrasound – uses sound waves to produce the picture.
- magnetic resonance imaging or MRI – uses magnets and radio waves to produce the picture.
- x-rays – use a form of radiation to see into the body and produce the picture.
- cat scan or CT – makes many pictures of the body from different angles to provide a more complete image.

Besides imaging tests, you also might need a surgery to know for sure if you have fibroids. These could include:

- laparoscopy – surgery with general anesthesia in which your doctor makes a small cut in the abdomen and places a small tube with a light inside to see any fibroids.
- hysteroscopy – surgery in which your doctor inserts a long tube with a camera into the vagina and directly into the uterus to see any fibroids. It also shows any growths or problems inside the uterus.

Q: What is the treatment for fibroids?

A: Talk with your doctor about the best way to treat your fibroids. She or he will consider a number of things before helping you choose a treatment. Some of these things include:

- whether or not you are having symptoms from the fibroids
- if you might want to become pregnant
- the size of the fibroids
- the location of the fibroids
- your age

If you have fibroids, but do not have any symptoms, you may not need any treatment. But your doctor will check during your regular exams to see if they have grown.

Medications

If you have fibroids and have mild symptoms, your doctor might only suggest pain medication. Over-the-counter anti-inflammatory drugs, such as ibuprofen, or other painkillers such as acetaminophen can be used for mild pain. If pain becomes worse, your doctor can prescribe a stronger painkiller.

Other drugs used to treat fibroids are called gonadotropin releasing hormone agonists (GnRHa). These drugs can decrease the size of the fibroids. Sometimes they are used before surgery, to shrink the fibroids, making them easier to remove. Side effects can include hot flashes, depression, not being able to sleep, decreased sex drive, and joint pain. Anti-hormonal agents, such as a drug called mifepristone, also can stop or slow the growth of fibroids. These drugs only offer temporary relief from the symptoms of fibroids; once you stop the therapy, the fibroids often grow back.

Surgery

If you have fibroids with moderate or severe symptoms, surgery may be the best way to treat them. Here are the options:



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- **Myomectomy** – a surgery to remove fibroids without taking out the healthy tissue of the uterus. There are many ways a surgeon can perform this procedure. It can be major surgery (with an abdominal incision) or minor surgery. The type, size, and location of the fibroids will determine what type of procedure will be done. Talk with your doctor about the different types of this surgery.
- **Hysterectomy** – a surgery to remove the uterus. This surgery is the only sure way to cure uterine fibroids. This surgery is used when a woman's fibroids are large, or if she has heavy bleeding, and is either near or past menopause and does not want children. There are various types of hysterectomy that differ in how invasive they are. Sometimes, if the fibroids are large, a woman might need a hysterectomy that involves cutting into the abdomen to remove the uterus. If the fibroids are smaller, the surgeon might be able to reach the uterus through the vagina, instead of making a cut in the abdomen.
- **Endometrial ablation** – the endometrial lining of the uterus is destroyed. This surgery controls very heavy bleeding, but afterwards a woman cannot have children.
- **Myolysis** – a procedure in which an electrical needle is inserted into the uterus through a small incision in the abdomen to destroy the blood vessels feeding the fibroids.

Uterine Fibroid Embolization (UFE)

Uterine fibroid embolization (UFE) is a treatment that cuts off the blood sup-

ply to the uterus and the fibroids so they shrink. UFE is proving to be an alternative to hysterectomy and myomectomy. The recovery time is also shorter, and there is a much lower risk of needing a blood transfusion than for these surgeries. Many women can have UFE and go home the same day. There is a small risk of infection in the treated fibroid, but these are usually managed with antibiotics. Recent studies also suggest that most fibroid tumors are not likely to re-grow after UFE, although more long-term data is needed.

Not all fibroids can be treated with UFE. All patients must first be evaluated with ultrasound or MRI to make sure the fibroids will respond well to this treatment. Doctors called interventional radiologists perform UFE. The best candidates for UFE are women who:

- have fibroid tumors that are causing heavy bleeding
- have fibroid tumors that are causing pain or pressing on the bladder or rectum
- don't want to have a hysterectomy
- don't want to have more children

Sometimes after UFE, the particles that are put into the fibroids to cut off their blood supply have traveled to the ovaries. In a few women, the ovaries then stop working for a short time or permanently. Although researchers know that UFE may affect how ovaries function, they are unsure of how exactly UFE affects fertility. If you want to have children in the future, you should talk with your doctors about the small, but definite risk of UFE causing you to go into early menopause. Too few



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women have gotten pregnant after UFE for researchers to know if there is an increased risk of pregnancy complications.

ExAblate® 2000 System

ExAblate® 2000 is a medical device that uses magnetic resonance image guided focused ultrasound to target and destroy uterine fibroids. The device is intended to treat women who have completed child bearing or do not intend to become pregnant. ExAblate® 2000 is non-invasive surgery. It spares the uterus and is an alternative to myomectomy, hysterectomy, watchful waiting, hormone therapy, or uterine fibroid embolization.

ExAblate combines two systems—a magnetic resonance imaging (MRI) machine to visualize patient anatomy, map the volume of fibroid tissue to be treated, and monitor the temperature of the uterine tissue after heating, and a focused ultrasound beam that heats and destroys the fibroid tissue using high frequency, high-energy sound waves.

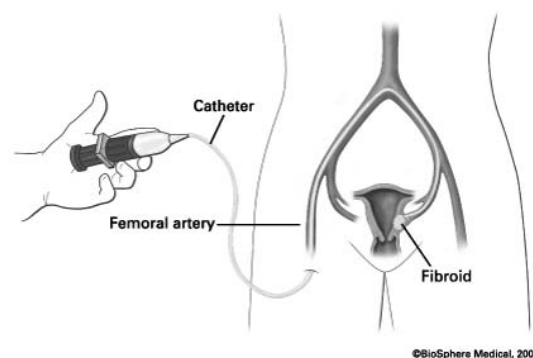
The treatment requires repeated targeting and heating of fibroid tissue while the patient lies inside the MRI machine. The procedure can last as long as three hours.

The new device can be used to treat some—but not all—fibroids. Fibroids close to sensitive organs such as the bowel or bladder and those outside the image area cannot be treated.

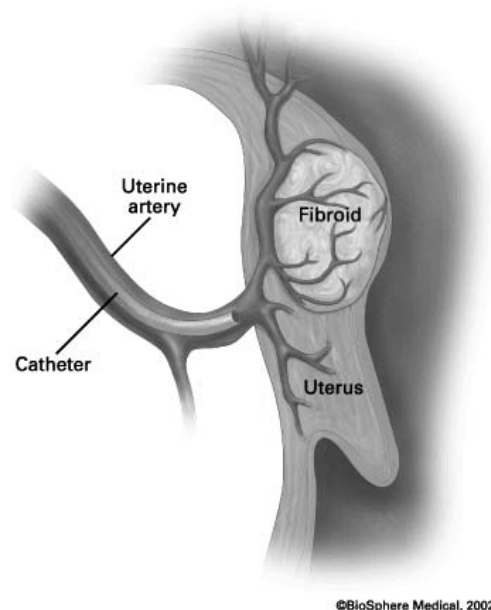
InSightec, the manufacturer, is conducting more research to assess the long-term safety and effectiveness of the treatment.

Q: How does Uterine Fibroid Embolization (UFE) work?

A: 1. A tiny tube called a catheter is inserted into the femoral artery at the top of the leg. Patients receive mild sedation and a numbing agent, so the procedure is not painful.



2. The catheter is then guided into the uterine artery and an arteriogram (x-ray in which dye is injected into the blood vessels) is done to map the arteries feeding the fibroids.



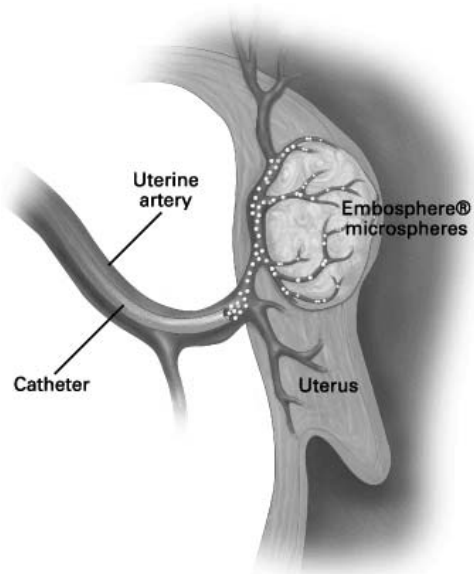


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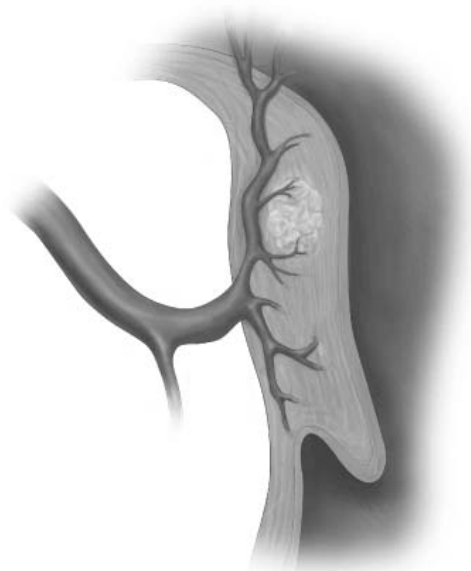
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3. Next, tiny particles called embosphere microspheres are injected through the catheter and into the fibroids, cutting off their blood supply.



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4. The fibroids begin to shrink, but the uterus and ovaries are spared.



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For more Information . . .

You can find out more about uterine fibroids by contacting the National Women's Health Information Center (NWHIC) at 1-800-994-9662 or the following organizations:

National Institute of Child Health and Human Development Clearinghouse

Phone Number(s): (800) 370-2943

Internet Address:

<http://www.nichd.nih.gov/publications/pubs.cfm>

National Uterine Fibroids Foundation

Phone Number(s): (719) 633-3454 or (800) 874-7247

Internet Address: <http://www.nuff.org/>

American College of Obstetricians and Gynecologists (ACOG) Resource Center

Phone Number(s): (800) 762-2264 x192

(Publications Requests Only)

Internet Address: <http://www.acog.org>

This FAQ was expert reviewed by Dr. Evan Myers, Associate Professor and Chief, Division of Clinical and Epidemiological Research, Department of Obstetrics and Gynecology, Duke University Medical Center.

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